COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

HNI Corporation
11200 Old Stage Road, Chester, Virginia
Permit No. PRO50766

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, HNI Corporation has applied for a Title V Operating Permit for its facility located at 11200 Old Stage Road, Chester, Virginia. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date: September 28, 2006

Air Permit Manager:_____ Date: September 28, 2006

Deputy Regional Director:_____ Date: September 29, 2006

FACILITY INFORMATION

Permittee
HNI Corporation
414 East Third Street
Muscatine, IA 52761

Facility
The HON Company
11200 Old Stage Road
Chester, VA 52761

County-Plant Identification Number: 51-041-0133

SOURCE DESCRIPTION

NAICS Code: 337214 – Steel Lateral Files, Steel File Cabinets, and Steel Bookcases (Metal Furniture)

Process: The steel furniture manufacturing process at The HON Company comprises of metal fabrication, welding, metal parts washing, spray coating and coating curing. Some assembly operations involve adhesive usage.
Process Steps: Raw materials including coated and uncoated steel are received and fabricated into furniture components. Various components are welded or glued in assembly operations. The uncoated components are cleaned in three stage washers and dried in gas-fired ovens before transfer to one of the coating lines. Coating is accomplished through manual electrostatic spray application. Overspray is collected on a baffle system and either reformulated for reuse or shipped to the paint manufacturer for reformulation. Overspray not collected on the baffles passes through dry polyester filters before exhausting through the coating line stacks. In addition, three lines operate with small dip tanks. Gas-fired ovens set the coating. Final assembled products are packaged and shipped.

The facility is a Title V major source of volatile organic compounds (VOCs), Total Hazardous Air Pollutants (Total HAPs) and Xylene. This source is located in an attainment area for all pollutants except for ozone, and is not a PSD source. The facility is permitted under a Minor NSR Permit issued on August 9, 2006.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations and the appropriate amendments to the current NSR permit, the facility appears to be not in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility are as identified in the corresponding Title V permit under II. Emission Units and IV. Insignificant Emission Units.

EMISSIONS INVENTORY

The actual annual emissions of criteria and Hazardous Air Pollutants (HAPs) are summarized in the following table:

2004 Facility Criteria and Hazardous Air Pollutant Emissions

Pollutant	2004 **Criteria** Pollutant Emission in Tons/Yr
PM	0.39
PM10	0.39
SO2	0.03
NO2	0.10
CO	3.96
VOC	97.35
Pollutant	2004 **Hazardous Air Pollutant** Emission in Tons/Yr
Ethyl Benzene	0.01
Glycol Ethers	0.24
Cumene	0.84
Methyl Ethyl Ketone (MEK)	0.27
Methanol	0.04
Napthalene	1.04
Toluene	0.04
Xylene	10.97

EMISSION UNIT APPLICABLE REQUIREMENTS – EU1- 4

(The corresponding NSR permit conditions are listed in the Title V Permit under each of the conditions in the regulatory citation section in parenthesis.)

A. LIMITATIONS

1. Conditions based on State BACT:

Condition nos. 18, 19, 20 and 21 (emission limitations conditions) from the August 9, 2006 NSR permit are considered State BACT requirements. Condition no. 3 (emission control condition) requiring a cover on the dip tank and condition no. 25 (opacity limitation condition) of the August 9, 2006 NSR permit requiring a 5% opacity for EU3 & 4 (lines 3 & 4) were considered BACT when initially permitted.

2. Conditions used to ensure process, fuel and facility-wide emission limitations are being met:

Condition nos. 2 - 4 (emission control conditions), condition nos. 5 and 6 (VOC work practice standards conditions), condition no. 7* (maximum rated capacity limitation condition), condition nos. 8, 9, 10, 13, and 15 (operating limitations of throughputs), condition nos. 11 and 12 (operating VOC emission limitations), condition 14** (approved fuels operating limitation), and condition nos. 24 and 25 (opacity limitation conditions) of the August 9, 2006 NSR Permit were used to ensure the respective sources would not exceed their emission limitations along with the facility wide emission limitation.

*: In addition, the condition requiring only 4 guns in operation per line (condition no. 7) had to be put in place as there are more than four spray guns per line with each spray gun having an approximate rated capacity of 10 gals/hr. As a result, the maximum rated capacity would be more than approximately 37.5 gals/hr per line. With this condition in place, this will ensure the facility will not exceed their hourly emission limits on each line based on the maximum rated capacity of each line is limited.

**: The approved fuel operating limitation ensures that a different fuel is not used that would not be as clean as what the permit allows and what the emission limitations were calculated upon.

3. Condition used to ensure Line 4 was not subject to 112 (g) MACT or case by case MACT:

Condition no. 22 from the August 9, 2006 NSR permit which limits the HAPs for Line 4 to below Title V levels was put in place when Line 4 was initially permitted to demonstrate Line 4 would not be subject to the 112 (g) MACT or "case by case" MACT as MACT RRRR was not promulgated yet.

4. Condition used to ensure VOC throughputs, operating VOC emission limitations along with NSPS EE requirements in regards to VOCs and MACT RRRR requirements:

Condition no. 23 from the August 9, 2006 NSR permit which required current material safety data sheets (MSDS) to be kept which were used to demonstrate compliance with the all of the VOC throughput limitations, operating VOC emission limitations, requirements by reference for NSPS EE and MACT RRRR.

5. Conditions used to ensure Virginia Administrative Codes that have specific emission requirements are being met:

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

Article 33: Emission Standards for Metal Furniture Coating Application Systems
9 VAC 5-40-4630 Standard for volatile organic compounds

"(9 VAC 5-40-4630 A) No owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in excess of 3.0 pounds per gallon of coating, excluding water, as delivered by the coating applicator."

The following conditions were used due to 9 VAC 5-40-4630 A:

Condition no. 11 of the August 9, 2006 NSR permit: Operating VOC Emission Limitation - Volatile organic compound emissions from finishing coatings used in each of the metal furniture coating application systems (Lines # 1 and 2) shall be limited to 3.0 lb VOC/gal less water as a daily average as delivered by the coating applicator.
(9 VAC 5-40-4630 A)

Condition no. 12 of the August 9, 2006 NSR permit: **Operating VOC Emission Limitation** - Volatile organic compound emissions from finishing coatings used in each of the metal furniture coating application systems (Lines #3 and 4) shall be limited to 2.8* lb VOC/gal less water as a daily average as delivered by the coating applicator and shall be limited to 7.51 pounds of VOC per gallon of coating solids applied [0.90 Kg of VOC per liter of coating solids applied].
(9 VAC 5-80-1180)

*: 2.8 lb VOC/gal less water as a daily average as delivered by the coating applicator was used as lines 3 and 4 were new lines which were applicable to NSPS EE of which it too had a VOC standard. Upon conversion of the NSPS EE VOC standard to the State's units it was determined it would be more stringent and would meet the VOC standard under 9 VAC 5-40-4630 A.

"(9 VAC 5-40-4630 B): Achievement of the emission standard in subsection A of this section by use of methods in **9 VAC 5-40-4640** will be acceptable to the board.

9 VAC 5-40-4640 Control Technology Guidelines
The control technology should consist of one or more of the following:

1. Use of electrodeposited waterborne coatings.
2. Use of other waterborne coatings.
3. Use of powder coatings.
4. Use of high-solids coatings.
5. Carbon Adsorption
6. Incineration
7. Any technology of equal or greater control efficiency when compared to the use of a coating complying with the 9 VAC 5-40-4630 A, provided such technology is approved by the board."

The following condition was used due to 9 VAC 5-40-4630 B:

Condition no. 4 of the August 15, 2006 NSR Permit: Emission Controls and Control Efficiency **-** Volatile organic compound emissions from the metal furniture coating application systems (Lines #1, 2, 3 and 4) shall be controlled by high-solids coatings and a metal baffle filter system. The metal baffle filter system shall be provided with adequate access for inspection and shall be in operation when the metal furniture coating application systems (Lines #1, 2, 3 and 4) are operating. In addition, the metal furniture coating application systems for Lines # 3 and 4 shall control volatile organic compound (VOC) emissions by the use of manual electrostatic spray guns each with a transfer efficiency of a minimum of 60%.
(9 VAC 5-80-1180 and 9 VAC 5-40-4640)
"(9 VAC 5-40-4630 C) No owner or other person shall use any coating system or equipment unless reasonable precautions are taken to minimize the discharge of emissions from cleaning or purging operations. Reasonable precautions may include the following:

1. The use of capture or control devices or both;
2. The use of detergents, high pressure water, or other nonvolatile cleaning methods;

3. The minimization of the quantity of volatile organic compounds used to clean lines of equipment; and
4. The adjustment of production schedules to minimize coating changes thereby reducing the need for frequent cleaning or purging of a system."

The following conditions were used due to 9 VAC 5-40-4630 C:

Condition no. 5 of the August 15, 2006 NSR Permit: VOC Work Practice Standards **-** Volatile organic compound emissions from cleaning lines of equipment shall be minimized by minimization of the quantity of volatile organic compounds used.
(9 VAC 5-80-1180 and 9 VAC 5-40-4630 C)

Condition no. 6 of the August 15, 2006 NSR Permit: VOC Work Practice Standards **-** Volatile organic compound (VOC) emissions from cleaning or purging a system shall be minimized by adjustment of production schedules to minimize coating changes.
(9 VAC 5-80-1180 and 9 VAC 5-40-4630 C)

9 VAC 5-40-80 Standard for Visible Emissions for Existing Sources of a 20% opacity was required in condition no. 25 of the August 9, 2006 NSR permit for Lines 1 and 2 as both these lines are existing sources.

6. Conditions used to ensure NSPS EE and MACT RRRR are being met:
Condition no. 16 of the August 9, 2006 NSR permit ("Requirements by Reference" Condition) was used to ensure all of applicable requirements from NSPS EE and MACT RRRR are being met. The last sentence of this condition states the following:

"Compliance for EU1 –4 with (40 CFR 63.4890 – Emission Limitation) MACT RRRR shall be in compliance at all times as per 40 CFR 63.4900."

In regards to the above for MACT RRRR, EU1-4 will be demonstrating compliance with the "existing affected source" emission limit (40 CFR 63.4890) of 0.83 lb of HAP/gal of coating solids used during each compliance period.

B. Monitoring and Recordkeeping

The August 9, 2006 permit did not address all of the monitoring and recordkeeping that is needed to meet Part 70 requirements as a result the following monitoring and recordkeeping requirements have been added to the Title V permit:

Verification of existence of covers on each of the dip tanks for (EU1, 2 and 4); when not in use shall be performed upon a new batch of coating mix.
(9 VAC 5-50-50 and 9 VAC 5-80-110)

Monitoring of the metal baffle filter system and the visible emission limit for (EU 3 and 4) shall be as according to the CAM provisions in Condition III.B.3.
(9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-80-110)

Compliance Assurance Monitoring (CAM) Provisions:*
The permittee shall monitor, operate, calibrate and maintain the metal baffle filter system (CD 5, 6, 7, 9, 10 and 11) controlling PM/PM10 resulting from operations of EU1 and EU2 according to the following:
"(Refer to Title V Permit for table of specifications)"

*: Lines 1 and 2 (EU1 and EU2) received CAM since it is located at a major source subject to Title V operating permit, it subject to an emission limitation and has a control device to meet that limit and the precontrol emission are greater than the major source size threshold. The performance indicator of visible emissions appears to be appropriate as it would indicate if the filters were clogged or had tears. If this is the case, opacity would be observed. The indicator range of no visible emissions for reasonable assurance of compliance appear to be appropriate based on the type of source, historical data and permit requirements. In addition, the performance indicator of having an inspection and maintenance (I/M) program in place appears to be appropriate also as this was previously implemented in the previous Title V permit to ensure the control equipment would be performing properly and a similar indicator range was placed in the previous Title V permit. This information was placed in the table as well.

The following was added to the "**On Site Records**" condition from the August 9, 2006 NSR permit to address recordkeeping under MACT RRRR; however, it is still covered under the condition "**Requirements by Reference"** in the August 9, 2006 NSR permit.

"MACT RRRR Recordkeeping for EU1-4:

j. All applicable records required to be kept as according to 40 CFR 63 Subpart RRRR – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture (40 CFR 63.4930 and 40 CFR 63.4931)"

In addition, the permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include the following and will be a monitoring tool to demonstrate the source is meeting all of their applicable requirements such as for throughput limits, emission limits, opacity limits and VOC work practice standards conditions:
On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region. These records shall include, but are not limited to:

a. Daily records demonstrating compliance with the requirements in Air Quality Program Policies and Procedures, Number AQP-4[1] from each of the metal furniture coating application systems (EU1, EU2, EU3 and EU4) along with the maximum number of spray paint guns used at any one time.

([1]: AQP-4 recordkeeping is required as each one of the lines are subject to the VOC standard in Article 33 of *Emission Standards for Metal Furniture Coating Application Systems* which is the required recordkeeping to demonstrate compliance with this standard. The reason, the daily recordkeeping is required is the VOC standard in Article 33 is based on a 24 hour averaging period. In addition, AQP-4 will demonstrate The HON Company is complying with the VOC Work Practice Standards conditions and daily VOC Emission Limitation Conditions

NSPS EE Recordkeeping for EU3 and 4:

b. Monthly records demonstrating compliance with the requirements in 40 CFR 60.315 for EU3 and EU4.

c. Records for EU4 will be kept for to demonstrate compliance with condition no. III.A.21, to show that no single hazardous air pollutant (HAP) is 10 tons/yr or above and no combination of HAPs are 25 tons/yr or above. These records shall be performed and calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. These records may be requested to be submitted to the department at any time at the department's discretion.

d. Current Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by DEQ showing VOC content, toxic compound content, HAP content, water content, solids content, for each coating, adhesive, thinner, and cleaning solution used in the facility.[2]

([2]: These records were put in place to demonstrate The HON Company was meeting the HAP condition for Line 4 along with meeting the VOC operating emission limitation conditions, process and facility-wide emission limitations conditions.)

e. Records demonstrating the average daily VOC emissions (in pounds/gallon of coating, excluding water, as delivered by the coating applicator) from each of the metal furniture coating application systems (EU1, EU2, EU3 and EU4).[3]

([3]: Theses records will demonstrate The HON Company is complying with the Operating VOC Emission Limitation conditions.)

f. Monthly material balance of VOCs used at the facility, to include:

1. Throughput of VOCs used in each of the metal furniture coating application systems (EU1, EU2, EU3 and EU4);
2. Throughput of VOCs used in cleaning operations (for EU1, EU2, EU3 and EU4);
3. Throughput of VOCs disposed of offsite;
4. Calculation of emissions.[5]

g. Annual throughput of natural gas and liquefied petroleum gas (LPG), calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.[5]

h. Total of the previous twelve months' emissions. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.[4]

([4:] These records will demonstrate The HON Company is complying with the 12 month consecutive throughput limitations and the tons per year emission limitations.)

i. Records demonstrating verification of existence of covers on each of the dip tanks for (EU1, 2 and 4) when not in use shall be performed upon a new batch of coating mix.

MACT Recordkeeping for EU1-4:

j. All applicable records required to be kept as according to 40 CFR 63 Subpart RRRR – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture (40 CFR

63.4930 and 40 CFR 63.4931)

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 26 of 8/9/06 Permit)

C. Testing

NSPS EE:
Monthly performance testing based on calculations to determine compliance with NSPS EE's VOC emission standard under 40 CFR 60.312 of $\leq$ 0.90 kilogram of VOC per liter of coating solids applied.

A table of test methods has been included in the permit to address any additional testing required to be performed along with including methods which are currently being required in NSPS EE and MACT RRRR. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

D. Reporting

NSPS EE:
Quarterly reporting is required of the results from monthly NSPS EE performance testing when the volume-weighted average of the total mass of VOC's emitted to the atmosphere is greater than the emission limit under 40 CFR 60.312.

However, if no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator *semiannually*.

MACT RRRR:
Semiannual compliance reporting with MACT RRRR is required of which may be included with Title V reporting as per MACT RRRR.

E. Streamlined Requirements

Not Applicable

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement No. 2-2003".

This general condition cite(s) the Article(s) that follow(s):
Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:
9 VAC 5-80-80. Application
9 VAC 5-80-140. Permit Shield
9 VAC 5-80-150. Action on Permit Applications

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

This general condition cites the sections that follow:
9 VAC 5-40-50. Notification, Records and Reporting
9 VAC 5-50-50. Notification, Records and Reporting

J. Permit Modification

This general condition cites the sections that follow:
9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
9 VAC 5-80-190. Changes to Permits.
9 VAC 5-80-260. Enforcement.
9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:
9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction
9 VAC 5-80-110. Permit Content

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds

authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:
40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.
40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.
40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

This general condition cites the regulatory sections that follow:
9 VAC 5-60-70. Designated Emissions Standards
9 VAC 5-80-110. Permit Content

INAPPLICABLE REQUIREMENTS

> The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

The above statement would apply to EU1 & EU2 (Lines 1 & 2) as both of these lines are existing sources.

COMPLIANCE PLAN
NA

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.
A table of all of the insignificant emission units can be found in the Title V permit under “IV. Insignificant Emission Units”

CONFIDENTIAL INFORMATION

> The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit will be place on public notice in the Richmond Times Dispatch from

August 15, 2006 to September 14, 2006 .